

02/01/2011

U.S. Patent Application Serial No.**10/560,832**  
Reply to OA dated November 1, 2010

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Currently Amended): A nozzle for coloring an electric wire, which spouts a liquid coloring agent with a specific amount thereof per spouting toward an outer surface of the electric wire so that a liquid drop of the coloring agent adheres to the outer surface of the electric wire, the nozzle comprising:

a receiver for receiving the coloring agent therein;

a first nozzle part formed in a cylindrical shape for allowing the coloring agent to pass therethrough, the first nozzle part communicating with the receiver, the first nozzle part being coaxial with and separate from the receiver; and

a second nozzle part formed in a cylindrical shape having an inner diameter smaller than that of the first nozzle part for allowing the coloring agent to pass therethrough, and an outer diameter equal to that of the first nozzle part, the second nozzle part being connected to the first nozzle part,

wherein the coloring agent has a viscosity less than 10 mPa·s (millipascal·second),

wherein the second nozzle part is disposed nearer to the electric wire than the first nozzle part is disposed, and

wherein between the first and second nozzle parts there is formed a step protruding inwardly between the first nozzle part and the second nozzle part, and the first and second nozzle parts are always in open communication with each other for spouting of liquid coloring agent there-through from the receiver, the nozzle satisfying a condition of  $8 \leq L/l \leq 10$ , wherein L is the sum of a length

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of the first nozzle part and a length of the second nozzle part in a direction in which the coloring agent flows, and  $l$  is the length of the second nozzle part in the direction in which the coloring agent flows, and satisfying a condition of  $4 \leq D/d \leq 6$ , wherein  $D$  is an inner diameter of the first nozzle part, and  $d$  is an inner diameter of the second nozzle part.

**Claim 2 (Original):** The nozzle for coloring an electric wire according to claim 1, wherein the step is formed flat in a direction crossing at right angles a direction in which the coloring agent flows in the first and second nozzle parts.

**Claim 3 (Original):** The nozzle for coloring an electric wire according to claim 1, wherein the step is formed flat in a direction crossing both a direction in which the coloring agent flows in the first and second nozzle parts and a direction crossing at right angles the direction in which the coloring agent flows.

**Claim 4 (Original):** The nozzle for coloring an electric wire according to claim 3, wherein the step is formed on at least one of the first and second nozzle parts.

**Claim 5 (Previously Presented):** The nozzle for coloring an electric wire as claimed in claim 1, wherein the first and second nozzle parts are connected coaxially to each other.

**Claims 6 - 8 (Canceled)**

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Claim 9 (Previously Presented): The nozzle for coloring an electric wire as claimed in claim 1, wherein the second nozzle part is made of polyetheretherketone.

Claim 10 (Previously Presented): A nozzle for coloring an electric wire, which spouts a liquid coloring agent with a specific amount thereof per spouting toward an outer surface of the electric wire so that a liquid drop of the coloring agent adheres to the outer surface of the electric wire, the nozzle comprising:

a receiver for receiving the coloring agent therein;

a first nozzle part formed in a cylindrical shape for allowing the coloring agent to pass therethrough, the first nozzle part communicating with the receiver, the first nozzle part being coaxial with and separate from the receiver; and

a second nozzle part formed in a cylindrical shape for allowing the coloring agent to pass therethrough, the second nozzle part having an outer diameter equal to that of the first nozzle part and being connected to the first nozzle part,

wherein the second nozzle part is disposed nearer to the electric wire than the first nozzle part is disposed, and the first and second nozzle parts are always in open communication with each other for spouting of liquid coloring agent there-through from the receiver, [[and]]

wherein the coloring agent has a viscosity less than 10 mPa·s (millipascal·second), and

wherein the second nozzle part is made of polyetheretherketone, the nozzle satisfying a condition of  $8 \leq L/l \leq 10$ , wherein L is the sum of a length of the first nozzle part and a length of the second nozzle part in a direction in which the coloring agent flows, and l is the length of the second

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nozzle part in the direction in which the coloring agent flows, and satisfying a condition of  $4 \leq D/d \leq 6$ ,  
wherein D is an inner diameter of the first nozzle part, and d is an inner diameter of the second  
nozzle part.